

## GERANIUM PLANT NAMED 'SABANI BLUE'

Genus: *GERANIUM*

Species: *libani x ibericum ssp. jubatum*

Denomination: 'SABANI BLUE'

### BACKGROUND TO THE INVENTION

The present invention relates to a new and distinct variety of hardy Geranium grown for use as an ornamental plant for the landscape. The new cultivar is known botanically as *Geranium libani x ibericum subspecies jubatum*, and will be referred to hereinafter by the cultivar name 'SABANI BLUE'.

The inventor has been a student, collector and breeder of Geraniums since 1985. In particular, the inventor has pursued a scientific interest in the botany of Geraniums including the possible relationships between its many species which the inventor has acquired and maintained as individual species reference plants. The inventor's Geranium breeding program has explored these relationships as potential inter-specific crosses. The breeding program has also aimed to create new and interesting and garden-worthy cultivars with unusual combinations of characteristics, as with the inventor's variety Geranium 'Westray' (U.S. Plant Patent No. 13,716), itself the result of an inter-specific cross.

In 1993, the inventor carried out controlled pollination in the inventor's glasshouse in Orkney Island, Scotland, United Kingdom as follows: An unnamed plant of the species *Geranium libani* (unpatented) was selected as the intended female parent, and its flowers were emasculated and bagged until receptive. Pollen was transferred from bagged donor flowers taken from an unnamed plant plants of the species *Geranium ibericum ssp. jubatum* (unpatented) as male parent. The female flowers were re-bagged.

Pollination was successful and the harvested seeds were sown in the spring of 1994. The resulting seedlings were grown on and observed and, from these, 'SABANI BLUE' was identified and isolated as a single plant with perceived novel characteristics. 'SABANI BLUE' was observed during the ensuing years until 1999 when 'SABANI BLUE' was first asexually reproduced by division under the inventor's direction and supervision, since ~~when~~ which time 'SABANI BLUE' has remained true to type in all successive generations.

The new variety, 'SABANI BLUE' is distinguished by its early flowering, its upward-facing flowers, its tolerance of full sun and its tight mounding foliage.

When compared with the female parent, an unnamed and typical plant of the species *Geranium libani*, 'SABANI BLUE' retains its foliage in summer, whereas the foliage of plants of the species *Geranium libani* tends to die back in summer. ~~die down.~~

When compared with the male parent, an unnamed and typical plant of the species *Geranium ibericum ssp. jubatum*, 'SABANI BLUE' is earlier to flower, by approximately three weeks.

The closest plant known to the inventor, in vigor and overall appearance, to 'SABANI BLUE' is the vegetatively propagated sterile hybridspecies (unpatented), *Geranium x magnificum* (unpatented) which is derived from the inter-specific cross (~~*Geranium ibericum x Geranium platypetalum*~~). *Geranium x magnificum* is considered to be one of the best and easiest to grow of hardy Geraniums, and has been assigned an Award of Garden Merit by the Royal Horticultural Society of England. 'SABANI BLUE' is three weeks earlier to flower than *Geranium x magnificum*.

## SUMMARY OF THE INVENTION

In addition to the detailed observations described further herein, the following general traits have been repeatedly observed and represent the distinguishing characteristics of the new plant 'SABANI BLUE'. In combination these traits set 'SABANI BLUE' apart from all other *Geraniums* known to the inventor. 'SABANI BLUE' has not been tested under all possible conditions and phenotypic differences may

be observed with variations in environmental, climatic and cultural conditions, however, without any variance in genotype.

1. *Geranium* 'SABANI BLUE' is early flowering.
2. The foliage of *Geranium* 'SABANI BLUE' forms a tight dome or mound
- 5 which does not die down in the summer.
3. The flowers of *Geranium* 'SABANI BLUE' are upward facing.

#### BRIEF DESCRIPTION OF THE DRAWINGS

10 The accompanying color drawings illustrate the overall appearance of the new cultivar 'SABANI BLUE' showing the colors as true as it is reasonably possible to obtain in colored reproductions of this type. Colors in the drawings may differ from the color values cited in the detailed botanical description which accurately describe the actual colors of the new variety "SABANI BLUE".

15 The drawing of 'SABANI BLUE' labeled as ~~Figure 1~~ FIG. 1 depicts a mature plant which is approximately 2 years old from a division and which has been grown in an open border in a garden in Cambridgeshire, United Kingdom.

The drawing labeled as ~~Figure 2~~ FIG. 2 depicts a close-up view of the flower and bud of 'SABANI BLUE'.

20 Both drawings were made using conventional techniques and although colors may appear different from actual colors due to light reflectance they are as accurate as possible by conventional photography.

#### 25 BOTANICAL DESCRIPTION OF THE PLANT

The following is a detailed description of the new *Geranium* plant named 'SABANI BLUE'. Data was collected in Cambridgeshire, United Kingdom, from 2 year old plant growing in open border soil. The color determinations are in accordance with

30 the 2001 Edition of the Royal Horticultural Society Colour Chart of the Royal

Horticultural Society, London, England, except where general color terms of ordinary dictionary significance are used.

Botanical classification: *Geranium libani* x *ibericum* ssp. *jubatum* 'SABANI BLUE'.

5 Species: *libani* x *ibericum* ssp. *jubatum*

Sexuality: Nominally hermaphrodite though some stamens in most flowers are not fully formed; anthers vestigial or absent.

Commercial classification: Hardy perennial.

Common name: Hardy Geranium.

10 Use: Ornamental for container or garden: best positioned in full sun.

Cultural requirements: Plant in well-drained moderately fertile soil in full sun.

Root system: Thick rootstock with fibrous roots.

Parentage: *Geranium* 'SABANI BLUE' is an induced hybrid resulting from the controlled pollination of:

15 Male parent: ————an unnamed single plant of the species *Geranium ibericum* ssp. *jubatum*

Female parent: an unnamed single plant of the species *Geranium libani*

Plant description:

Bloom period: Commencing mid to late April and continuing until September.

20 Lastingness of an individual flower: Approximately 5 – 7 days in spring and fall; 3 – 4 days in summer.

Plant habit: Upright, dense and mounding.

Height: within the range 570mm to 650mm.

Width: Approximately 700mm.

25 Hardiness: USDA Zone 6.

Propagation: Propagation is accomplished by division.

Time for a division to establish: If divided in spring, a division with a single eye will begin to root within 2-3 weeks and will be an established growing plant in 4-6 weeks after division.

30 Crop time: 3 - 4 months are needed to produce a finished plant in a 1-litre container.

Pest and Disease Susceptibility or Resistance: Largely unaffected by pest or disease problems although no specific resistances have been established. ~~None of note.~~

Stem:

- 5      ~~Basal rooted stem which bears the flowering stems. Basal stem, which carries basal leaves, is inconspicuous. All stem botanical details are taken from the flowering stems, apart from the record of the basal leaves.~~

Basal stem: Inconspicuous

Flowering stem:

- 10      Overall length: 530mm – 655mm.  
Number of nodes: typically approximately 5  
Internode length ~~Length to lowest internode:~~ highly variable, ranges from 50mm to– 205mm.  
Stem diameter: ranges from Diameter: 4.7mm – 6.1mm at lowest  
15      internode to 2.5mm – 3.5mm at higher and highest internode. ~~2.5mm – 3.5mm.~~

Basal Leaves:

- 20      Stem shape ~~Shape:~~ Cylindrical.  
Stem color (lowest internode): ~~187A.~~  
Greyed-purple 185D but paler towards base and tending to yellow-green 145B and 145C towards first node  
Stem color (higher and highest internode):  
Yellow-green 145A but slightly less yellow.

- 25      Stem surface: Moderately to densely pubescent; hairs eglandular.  
Development of Laterals: At each node, two laterals developed more or less equally. Terminal flower suppressed except at uppermost node.

Basal-Leaves: Flowering stem leaves similar except for leaf and petiole dimensions all of which decrease from basal leaves to uppermost leaves as distinguished below:

- 30      Shape: Orbicular

Division: Seven divisions, extending three-fourths of the way towards midpoint; broadest one-fourth of the way towards the tip. Upper divisions 3-lobed.

Apex: Division tips cuspidate

Base: Lowest divisions on either side overlapping.

5 Venation pattern: Palmate

Vein color (adaxial and abaxial surfaces): Green 137A

Margins: Deeply crenately toothed.

Attachment: Petiolate

Petioles:

10 Petiole Length (basal leaves): Length: 298mm – 393mm

Length (higher leaves): decreasing towards apex: ranges from approximately 150mm to approximately 25mm on uppermost leaf.

Diameter (basal leaves): Diameter: 2.5mm - 3.0mm

15 Diameter (higher leaves): decreases towards apex: within range 2.5mm to 1.5mm

Color: 143C but browner, strongly tinged with greyed-purple 184A toward the base.

Pubescence: Moderate to dense, hairs eglandular.

Stipules: Present

20 Length: 9mm – 15mm

Width: 2mm – 5mm

Color: Papery, transparent, tinged green along midline.

Arrangement: Rosette

25 Leaf surface (adaxial surfaces): Weakly rugose; sparsely minutely pubescent, hairs eglandular.

Leaf surface (abaxial surfaces): Sparsely pubescent, mainly along the ribs, hairs eglandular.

Leaf dimensions:

30 Basal leaf: Length: 105mm – 139mm.

Basal leaf: Width: 103mm – 148mm

Higher leaves): size decreasing towards apex: ranges from approximately 80mm length, 80mm width to (uppermost leaf) approximately 35mm length, 35mm width.

- 5      Leaf color (adaxial surface): 137A but slightly yellower  
Leaf color (abaxial surface): 138B but deeper and slightly browner  
Fragrance: Absent.

Flowers:

- 10      Flowering stem: compound cyme with flowers suppressed at lower nodes.  
Number of flowers per stem: In the range 18 – 67  
Inflorescence: Where present at higher nodes, 1 – 2 flowered cymules. All stems terminate in compound cyme of 4 – 9 flowers.  
Bud shape: oval-elliptical
- 15      Bud length: 12mm – 13mm  
Bud diameter: 5mm – 6mm  
Bud color: Varies between 139C and 139D, with protruding petal tips violet-blue N89A.  
Peduncle length:      On 2-flowered cymules: 59mm – 98mm
- 20      Final internode length to terminal cyme: 63mm – 99mm  
Peduncle diameter:      On 2-flowered cymules: approximately 1mm  
Final internode to terminal cyme: 1.5mm – 2.1mm  
Peduncle color: 145A  
Peduncle surface: Moderately to densely pubescent, eglandular (cymules and compound cyme).
- 25      Sexuality: Nominally hermaphrodite though some stamens in most flowers are not fully formed; anthers vestigial or absent.  
Flower shape: saucer-shaped  
Flower dimensions:
- 30      Depth of throat (corolla): 7mm – 9mm  
Diameter (corolla): 42mm – 47mm

Persistent or self-cleaning: Corolla self-cleaning.

Aspect: Upward to nodding.

Petals: Five, unfused in number.

~~Petal arrangement: Unfused~~

5 Petal shape: Obcordate with shallow terminal notch

Petal apex: emarginate

Petal margin: Entire, weakly waved

Petal dimensions:

Length: 21mm – 24mm

10 Width: 18mm – 20mm

Petal color (adaxial surfaces): Violet N88B but paler with veins nearest purple N79B. Basal one-eighth of surface white, N155C but less yellow.

Petal color (adaxial surfaces): Between Violet N88A and N88B with veins nearest violet 83A. Basal one-eighth of surface between 76B and 76C.

15 Petal surfaces: Both smooth.

Calyx Diameter: 20mm – 22mm

Calyx height: 3mm – 5mm

Calyx surface: Sparsely pubescent, mainly along sepal margins, eglandular.

Calyx color: Sepals green 139D with midvein tending to deeper green

20 139C midvein and margins tinged with red, closest to 53C.

Sepals: Number: Five

Sepal shape: Ovate

Sepal apex shape: strongly mucronate

Sepal margin: Entire

25 Flower fragrance: Absent.

Reproductive organs:

Stamens: Number: Ten, although in most flowers some not fully formed, with anthers vestigial or absent. Some flowers with no anthers present.

Stamen color: See anther and filament below.

30 Stamen Dimensions:

Filament approximately 5mm in length, less than 1mm in width.



Anthers: Vestigial or absent

Anther color: Where present, appears brownish-yellow, ~~too small to match~~

Anther shape: Linear.

Anther dimensions: Approximately 2.5mm in length, less than 1mm in width.

5 Color and Quantity of pollen: None observed.

Pistil: Five, fused

Pistil color and shape: see stigma, style and ovary below.

Stigma shape: Strongly reflexed.

Stigma color: Nearest to Greyed-Purple 187D

10 Stigma dimensions: Approximately 3mm in length; markedly less than 1mm in diameter.

Style shape: Linear

Style color: Nearest to Greyed-Purple 187D

Style dimensions: Approximately 5mm in length; less than 1mm in diameter.

15 Ovary position: Superior

Ovary color: Pale green, too small to match. Densely pubescent.

Ovary shape: Narrow ovate.

Ovary dimensions: 2mm. in length and 1.5mm in width.

Seed production:

20 No seed production has been observed.

25